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10/600,756	06/23/2003	Sung-Deuk Kim	P-0554	5728

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EXAMINER
WONG, BLANCHE

ART UNIT	PAPER NUMBER
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/600,756	KIM, SUNG-DEUK
	Examiner	Art Unit	
	Blanche Wong	2616	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
   Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 June 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>23 June 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>Dec04</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

2.   **Claims 1-16,22-27** are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

With regard to claims 1 and 23, the recitation "of a type" renders the claim vague

and indefinite. See MPEP 2173.05(b), section E. It is unclear as to what "type" was

intended to convey.

With regard to claim 22, it is unclear how data transmission to the receiving

terminal is performed based on a circuit network transmission method wherein claim 22

is dependent on claim 17 and claim 17 recites data transmission of an uplink radio

section.

3.   There is insufficient antecedent basis for this limitation in the claim.

Claim 22, line 1, "data transmission".

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public
> use or on sale in this country, more than one year prior to the date of application for patent in the United
> States.

5.   **Claim 1,3-5,23,25-27** are rejected under 35 U.S.C. 102(b) as being anticipated

by Sellin et al. (U.S. Pat No. 5,491,719).

With regard to claims 1 and 23, Sellin discloses

detecting an error in a data block **(identify blocks which have had errors)**

which has passed an uplink radio section **(uplink)** **("the MSC uplink error detector**

and handler 219 can identify blocks which have had errors introduced during the

transmission", col. 5, lines 17-19);

inserting **(adding)** **(the base station block formatter 217 formats ... data into**

the block format 301 by adding ... the error detection code field 307", col. 5, lines

13-16) a CRC code **("the error detection code is a CRC code", col. 5, lines 2-3; see**

also CRC 307 in Fig. 3) of a type causing a 'CRC fail' to occur into the data block

(does not output the block) **("in the event of an error being detected ..., the MSC**

uplink error detection and handler 219 does not output the block... ", col. 5, lines

28-31); and

transmitting the data block with the CRC code to a receiving side **(MSC)** **(uplink**

transmitting from BS to MSC in Fig. 2).

With regard to claims 3 and 25, Sellin discloses a standardized bit pattern **(7**

parity bits, col. 6,lines 58).

With regard to claims 4 and 26, Sellin discloses a CRC code **("the error**

detection code is a CRC code", col. 5, lines 2-3; see also CRC 307 in Fig. 3) that is

generated and inserted **(adding) (the base station block formatter 217 formats ...**

data into the block format 301 by adding ... the error detection code field 307",

col. 5, lines 13-16) by a base station system **(base station)** of a transmitting side.

With regard to claims 5 and 27, Sellin discloses a base station **(base station**

transceiver 103 in Fig. 1), a radio network controller **(base station controller 101 in**

Fig. 1), and a mobile switching center **(MSC in Fig. 1)**.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   **Claims 6,8-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Sellin in view of Ohmi et al. (U.S. Pat No. 5,550,756).

With regard to claim 6, Sellin discloses

checking whether an error exists in a data block **(identify blocks which have**

had errors) which has passed an uplink radio section **(uplink) ("the MSC uplink error**

detector and handler 219 can identify blocks which have had errors introduced

during the transmission", col. 5, lines 17-19);

inserting **(adding) (the base station block formatter 217 formats ... data into**

the block format 301 by adding ... the error detection code field 307", col. 5, lines

13-16) a CRC code ("the error detection code is a CRC code", col. 5, lines 2-3; see also CRC 307 in Fig. 3) of a type causing a 'CRC fail' to occur into the data block (does not output the block) ("in the event of an error being detected ..., the MSC uplink error detection and handler 219 does not output the block... ", col. 5, lines 28-31); and

detecting the data block containing the CRC code on a receiving side (MSC) (uplink transmitting from BS to MSC in Fig. 2).

However, Sellin fails to explicitly show reporting detection of an error to an image application.

Ohmi discloses reporting detection of an error (detects an error) (the image receiving unit 111 comprises ... a receiving unit 22 ... , col. 9, lines 33-34, and a receiving unit 22 ... detects an error ..., col. 9, lines 47-48) to an image application (image receiving unit) (the image receiving unit 111 receives a data packet and reproduces an image from ... the received data packet, col. 9, lines 37-40).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include reporting detection of an error to an image application as taught in Ohmi in Sellin. The suggestion/motivation for doing so would have been to eliminate bursty error due to fading which is unique to a radio line. Ohmi, col. 1,line 35. Therefore, it would have been obvious to combine Ohmi with Sellin for the benefit of reporting detection of an error to an image application, to obtain the invention as specified in claim 6.

With regard to claim 8, the combination of Sellin and Ohmi discloses the method of claim 6. Sellin further discloses a standardized bit pattern **(7 parity bits, col. 6,lines 58)**.

With regard to claim 9, the combination of Sellin and Ohmi discloses the method of claim 6. Sellin further discloses a CRC code **("the error detection code is a CRC code", col. 5, lines 2-3; see also CRC 307 in Fig. 3)** that is generated and inserted **(adding) (the base station block formatter 217 formats ... data into the block format 301 by adding ... the error detection code field 307", col. 5, lines 13-16)** by a base station system **(BS)** of a transmitting side.

With regard to claim 10, the combination of Sellin and Ohmi discloses the method of claim 9. Sellin further discloses a base station **(base station transceiver 103 in Fig. 1)**, a radio network controller **(base station controller 101 in Fig. 1)**, and a mobile switching center **(MSC in Fig. 1)**.

8.   **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sellin and Ohmi as applied to claim 6 above, and further in view of Suma et al. (U.S. Pat No. 4,680,763).\

With regard to claim 7, the combination of Sellin and Ohmi discloses the method of claim 6. However, the combination fails to explicitly show performing a concealment operation on the data block by the image application.

Suma discloses performing a concealment operation **(error concealment operation)** on the data block by the image application **(error concealment operation, col. 4, lines 7-8; see also error concealment circuit 53 in Fig. 4)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include performing a concealment operation on the data block by the image application as taught in Suma in Sellin and Ohmi. The suggestion/motivation for doing so would have been to reduce the probability that a reproduced data is judged to be erroneous. Suma, col. 4, lines 10-12. Therefore, it would have been obvious to combine Suma with Sellin and Ohmi for the benefit of performing a concealment operation on the data block by the image application, to obtain the invention as specified in claim 7.

9.   **Claims 11-22,28-31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sellin in view of Suma.

With regard to claim 11, Sellin discloses

checking whether an error exists in a data block **(identify blocks which have had errors)** which has passed an uplink radio section **(uplink) ("the MSC uplink error detector and handler 219 can identify blocks which have had errors introduced during the transmission", col. 5, lines 17-19)**;

inserting **(adding) (the base station block formatter 217 formats ... data into the block format 301 by adding ... the error detection code field 307", col. 5, lines 13-16)** a CRC code **("the error detection code is a CRC code", col. 5, lines 2-3; see**

also CRC 307 in Fig. 3) of a type causing a 'CRC fail' to occur into the data block

(does not output the block) ("in the event of an error being detected ..., the MSC

uplink error detection and handler 219 does not output the block... ", col. 5, lines

28-31) if the data is detected to have an error (in the event of an error) ("in the event

of an error being detected ..., the MSC uplink error detection and handler 219

does not output the block... ", col. 5, lines 28-31);

detecting the data block containing the CRC code on a receiving side **(MSC)**

(uplink transmitting from BS to MSC in Fig. 2); and

stopping a decoding operation on the data block **(does not output) ("in the**

event of an error being detected ..., the MSC uplink error detection and handler

219 does not output the block... ", col. 5, lines 28-31).

However, Sellin fails to explicitly show performing a concealment operation.

Suma discloses performing a concealment operation **(error concealment**

operation) (error concealment operation, col. 4, lines 7-8; see also error

concealment circuit 53 in Fig. 4).

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to include performing a concealment operation as taught in Suma in

Sellin. The suggestion/motivation for doing so would have been to reduce the

probability that a reproduced data is judged to be erroneous. Suma, col. 4,lines 10-12.

Therefore, it would have been obvious to combine Suma with Sellin for the benefit of

performing a concealment operation, to obtain the invention as specified in claim 11.

With regard to claim 12, the combination of Sellin and Suma discloses the method of claim 11. Sellin further discloses a standardized bit pattern **(7 parity bits, col. 6,lines 58)**.

With regard to claim 13, the combination of Sellin and suma discloses the method of claim 11. Sellin further discloses a CRC code **("the error detection code is a CRC code", col. 5, lines 2-3; see also CRC 307 in Fig. 3)** that is generated and inserted **(adding) (the base station block formatter 217 formats ... data into the block format 301 by adding ... the error detection code field 307", col. 5, lines 13-16)** by a base station system **(BS)** of a transmitting side.

With regard to claim 14, the combination of Sellin and Suma discloses the method of claim 13. Sellin further discloses a base station **(base station transceiver 103 in Fig. 1)**, a radio network controller **(base station controller 101 in Fig. 1)**, and a mobile switching center **(MSC in Fig. 1)**.

With regard to claim 15, the combination of Sellin and Suma discloses the method of claim 11. Sellin further discloses an originating terminal **(mobile station 105 in Fig. 1)** and a radio network controller **(base station controller 101 in Fig. 1)**.

With regard to claim 16, the combination of Sellin and Suma discloses the method of claim 11.

Suma further discloses moving picture information **(image, col. 4, line 9)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include moving picture information in Suma in Sellin. The suggestion/motivation for doing so would have been to provide for images. Suma, col. 4,line 9. Therefore, it would have been obvious to combine Suma with Sellin for the benefit of moving picture information, to obtain the invention as specified in claim 16.

With regard to claims 17,28,29, Sellin discloses

detecting that data block which has passed an uplink radio section **(uplink)** has an error **(identify blocks which have had errors)** ("the MSC uplink error detector and handler 219 can identify blocks which have had errors introduced during the transmission", col. 5, lines 17-19); and

blocking transmission of the data block **(does not output the block)** ("in the event of an error being detected ..., the MSC uplink error detection and handler 219 does not output the block... ", col. 5, lines 28-31).

However, Sellin fails to explicitly show determining that on or more data blocks have not been timely received by the receiving side; and performing a concealment operation on the data block not timely received.

Suma discloses

determining that on or more data blocks have not been timely received **(different speed, col. 4, line 1)** by the receiving side; and

performing a concealment operation **(error concealment operation) (error concealment operation, col. 4, lines 7-8; see also error concealment circuit 53 in Fig. 4)** on the data block not timely received.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include show determining that on or more data blocks have not been timely received by the receiving side; and performing a concealment operation on the data block not timely received as taught in Suma in Sellin. The suggestion/motivation for doing so would have been to reduce the probability that a reproduced data is judged to be erroneous. Suma, col. 4,lines 10-12. Therefore, it would have been obvious to combine Suma with Sellin for the benefit of determining that on or more data blocks have not been timely received by the receiving side; and performing a concealment operation on the data block not timely received, to obtain the invention as specified in claim 17,28,29.

With regard to claims 18 and 30, the combination of Sellin and Suma discloses a method of claim 17 and a system of claim 28. Sellin further discloses a base station system **(see base station controller 101 and base station transceiver 103 in Fig. 1)** of the transmitting side.

With regards to claims 19 and 31, the combination of Sellin and Suma discloses a method of claim 17 and a system of claim 28. Sellin further discloses a base station

(base station transceiver 103 in Fig. 1), a radio network controller (base station

controller 101 in Fig. 1), and a mobile switching center (MSC in Fig. 1).

With regard to claim 20, the combination of Sellin and Suma discloses the

method of claim 17. Sellin further discloses an originating terminal (mobile station 105

in Fig. 1) and a radio network controller (base station controller 101 in Fig. 1).

With regard to claim 21, the combination of Sellin and Suma discloses the

method of claim 17.

Suma further discloses moving picture information (image, col. 4, line 9).

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to include moving picture information in Suma in Sellin. The

suggestion/motivation for doing so would have been to provide for images. Suma, col.

4, line 9. Therefore, it would have been obvious to combine Suma with Sellin for the

benefit of moving picture information, to obtain the invention as specified in claim 21.

With regard to claim 22, the the combination of Sellin and Suma discloses the

method of claim 17. Sellin further discloses data transmission to the receiving terminal

that is performed based on a circuit network transmission method (digital switching)

(PCM link 107, col. 2, line 57-58)(it is inherent there is some digital switching in a

digital cellular communication system).

Allowable Subject Matter

10.   Claims 2 and 24 would be allowable if rewritten to overcome the rejection(s)

under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of

the limitations of the base claim and any intervening claims.

Conclusion

11.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Blanche Wong whose telephone number is 571-272-
3177. The examiner can normally be reached on Monday through Friday, 830am to
530pm.
        If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the
organization where this application or proceeding is assigned is 571-273-8300.
        Information regarding the status of an application may be obtained from the
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BW
March 11, 2007

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